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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,775	07/09/2001	Markku Rajala	0386/00294	5959
7590	11/18/2003		EXAMINER	
Burton A Amernick Connolly Bove Lodge & Hutz PO Box 19088 Washington, DC 20036-0088			HOFFMANN, JOHN M	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/806,775	Applicant(s) RAJALA ET AL.	
	Examiner John Hoffmann	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-27 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 23-24 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims appears to fail to claim the subject matter which applicant regards as the invention. In Examiner's opinion the water/alcohol from the solution will evaporate/burn, the nitrate, the "form of aluminum" and the tetrachloride will each oxidize before there is any combining of the streams. In other words, in examiner's opinion, the first and second components do not combine. It is two or more of the following which actually combine: erbium, erbium oxide, silicon, silicon dioxide. The raw materials are separated by a gas stream - and the raw materials would have been transformed into something else prior to any substantial combining.

Claim Rejections - 35 USC § 102

Claims 21-22 and 25-27 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by FI 98832.

The first component is oxygen which combines with the second component: cobalt nitrate. They combine to form cobalt oxide. See the third page of the translation

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of FI 98832. Alternatively the fuel combines/mixes with the nitrate. Claim 22 and 25-27: see figures 2-4.

Claims 21-22 and 25-27 are rejected under 35 U.S.C. 102(d) as being barred by applicant's Finnish Patent FI 98832. See the reasons given in the previous Office action.

Claim 21, and 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi 4388098.

Takahashi discloses the invention in Example 5, at col 8. AS to the nebulization being "in a vicinity" : it is deemed that since it was done close enough to transport a nebulized solution, that it is "in a vicinity"

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi 4388098.

See above as to how Takahashi discloses the invention. However, Takahashi does not disclose whether the materials are fed coaxially in example 5. Figure 3 shows a burner with coaxial feeds - it is the only single burner type device that Takahashi discloses; compare to the burner arrangement of figures 1-2. It would have been obvious to use the figure 3 burner, because it is the only burner that Takahashi discloses which would be commensurate with the example 5 process.

Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi 4388098 in view of Ainslie 4923279.

Takahashi discloses the invention as claimed, except the use of erbium nitrate and a form of aluminum. Col.1, lines 64-68 discloses using "at least one metal salt". Then at the top of col. 2, Takahashi discloses only the following metals: alkalis, alkaline earths, lead and lanthanum [sic] - such being "conventional" metal dopants (col. 1, lines 27-31). Takahashi discloses using nitrates of each of these dopants.

Ainslie teaches that erbium (and aluminum) as a dopant will create fibers for a "wide range of devices" such as broadband sources, super luminescent sources, amplifiers and temperature sensors (col. 1, lines 12-26, 49; col. 2, lines 42-45; and col. 3, lines 19-25). It would have been obvious to improve the Takahashi method by using erbium and aluminum as (either alternative or additional) dopants, for the known benefits that they impart. Furthermore, it would have been obvious to use nitrates as

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the precursor for the erbium and aluminum because Takahashi discloses using nitrates for all of the other metal dopants.

Response to Arguments

Applicant's arguments filed 23 October 2003 have been fully considered but they are not persuasive.

It is argued that Tikkanen does not disclose combining two components to form a multicomponent material. As indicated above, Tikkanen would form a multicomponent material: cobalt oxide has cobalt and oxygen. Although Applicant disclosed invention has different components, the terms in the claims are not defined in a manner which would exclude the above interpretation of Tikkanen.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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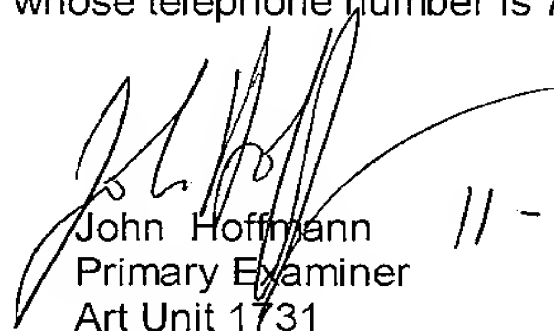
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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is 703-308-0469. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 703-308-1164. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.


John Hoffmann
Primary Examiner
Art Unit 1731

11-13-03

jmh